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45809 7590 02/06/2009

SHOOK, HARDY & BACON L.L.P.
(c/o MICROSOFT CORPORATION)
INTELLECTUAL PROPERTY DEPARTMENT
2555 GRAND BOULEVARD
KANSAS CITY, MO 64108-2613

EXAMINER

LETT, THOMAS J

ART UNIT

PAPER NUMBER

2625

DATE MAILED: 02/06/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,410	06/30/2003	Amanda Giang-Tien Nguyen	MFCP.103203	8066

TITLE OF INVENTION: SYSTEM AND METHOD FOR AUTOMATIC CONFIGURATION

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	05/06/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail Stop ISSUE FEE**
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

45809 7590 02/06/2009

SHOOK, HARDY & BACON L.L.P.
(c/o MICROSOFT CORPORATION)
INTELLECTUAL PROPERTY DEPARTMENT
2555 GRAND BOULEVARD
KANSAS CITY, MO 64108-2613

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,410	06/30/2003	Amanda Giang-Tien Nguyen	MFCP.103203	8066

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nonprovisional	NO	\$1510	\$300	\$0	\$1810	05/06/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
LETT, THOMAS J	2625	358-001150

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
 "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): Individual Corporation or other private group entity Government

4a. The following fee(s) are submitted:

Issue Fee
 Publication Fee (No small entity discount permitted)
 Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

A check is enclosed.
 Payment by credit card. Form PTO-2038 is attached.
 The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

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Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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45809	7590	02/06/2009	EXAMINER	
SHOOK, HARDY & BACON L.L.P. (c/o MICROSOFT CORPORATION) INTELLECTUAL PROPERTY DEPARTMENT 2555 GRAND BOULEVARD KANSAS CITY, MO 64108-2613				LETT, THOMAS J
		ART UNIT		PAPER NUMBER
		2625		DATE MAILED: 02/06/2009

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 936 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 936 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	10/608,410	NGUYEN ET AL.	
	Examiner	Art Unit	
	THOMAS J. LETT	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to amendment received 06 November 2008.
2. The allowed claim(s) is/are 1-29 and 31-33.
3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All
 - b) Some*
 - c) None of the:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. Notice of References Cited (PTO-892)
2. Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. **Information Disclosure Statements (PTO/SB/08),**
Paper No./Mail Date _____
4. Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. Notice of Informal Patent Application
6. Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. **Examiner's Amendment/Comment**
8. Examiner's Statement of Reasons for Allowance
9. Other _____.

/THOMAS J. LETT/
Examiner, Art Unit 2625

/Edward L. Coles/
Supervisory Patent Examiner, Art Unit 2625

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Leonard Searcy on 30 January 2009.

1. (currently amended) A system for automatic configuration upon installation of a network printer, wherein the network printer is associated with printer description files, a driver, a spooler, and a port monitor, the system comprising:

bi-directional application program interfaces associated with the spooler for allowing the driver to generate a request and a response, the bi-directional application program interfaces ~~configured to that~~ seek a list of one or more installable features upon installation of the network printer;

a syntax within the printer description files for representing and associating the request and the response with a print feature, the syntax including one or more extensions to the printer description files;

extension files stored in the driver for relating bi-directional values and printer values, the bi-directional values ~~configured to that~~ enable a client to generate a request and interpret a response;

a notification infrastructure controlled by the port monitor for providing a bi-directional notification of configuration changes to the driver and selected applications; and

a computer storage medium for storing information related to automatic configuration upon installation of [[a]]the network printer,

wherein the bi-directional application program interfaces ~~are configured to~~ perform an auto-configuration of the system upon installation of the network printer, the auto-configuration including configuration of the one or more installable features and the auto-configuration capable of being performed independent of input from one or more users at one or more computers.

2. (original) The system of claim 1, wherein the notification infrastructure includes a drive printer event mechanism for informing the driver of a configuration change.

3. (original) The system of claim 1, wherein the notification infrastructure includes a find next printer change notification for allowing an application to monitor and receive configuration changes automatically.

4. (original) The system of claim 1, wherein the syntax additionally comprises a plurality of keywords including a response type keyword for designating a bi- directional response type and a response data keyword for mapping between features of the network printer.

5. (original) The system of claim 1, wherein the syntax provides tools for providing updates at a global level, at an option level, and at a feature level.

6. (original) The system of claim 1, further comprising independent hardware vendor extensions for enumerating specific features provided by a manufacturer.

7. (original) The system of claim 1, wherein the bi-directional application program interfaces provide tools for supporting a get action, a set action, and an enumerate action.

8. (original) The system of claim 1, wherein port monitor includes a mechanism for retrieving data from a network printer database and for accessing the extension files to transform the data.

9. (original) The system of claim 8, wherein the bi-directional application program interfaces provide a mechanism for returning the data retrieved by the port monitor.

10. (currently amended) A system for facilitating client retrieval of bi-directional information upon installation of a network device, the system comprising:

- a set of bi-directional constructs within a printer description file, the bi-directional constructs ~~configured to~~ seek a list of one or more installable features upon installation of the network device;
- a port monitor for receiving the bi-directional constructs, for retrieving data from the network device in accordance with the bi-directional constructs, transforming the data into an appropriate format, creating a channel, and sending the transformed data;
- a spooler including a mechanism for receiving installation notifications over the created channel from the port monitor and routing the installation notifications to selected applications; and
- a computer storage medium for storing information related to automatic configuration upon installation of a network printer,
 - wherein the bi-directional constructs ~~are configured to~~ perform an auto-configuration of the system upon installation of the network printer, the auto-configuration including configuration of the one or more installable features~~[],]~~ and the auto-configuration capable of being performed independent of input from of one or more users at one or more client computers,
 - wherein the auto-configuration provides for automatically updating the system upon installation of the network printer ~~without~~ independent of user intervention:
 - wherein the bi-directional constructs ~~are configured to~~ monitor and recognize an acquiring of additional printer features, and
 - wherein the additional printer features are automatically updated when recognized.

11. (original) The system of claim 10, wherein spooler comprises a drive printer event mechanism for informing a driver of a configuration change.

12. (original) The system of claim 10, wherein the spooler comprises a find next printer change notification for allowing an application to monitor and receive configuration changes automatically.

13. (original) The system of claim 10, wherein the set of bi-directional constructs includes a bi-directional query construct and a bi-directional response construct.

14. (original) The system of claim 13, wherein the printer description file comprises a plurality of keywords including a response type keyword for designating a bi-directional response type and a response data keyword for mapping between features of the network printer.

15. (original) The system of claim 14, wherein the bi-directional constructs and the keywords form a syntax providing tools for making automatic updates at a global level, at an option level, and at a feature level.

16. (original) The system of claim 10, further comprising independent hardware vendor extensions for enumerating specific features provided by a manufacturer.

17. (original) The system of claim 10, further comprising bi-directional application program interfaces within the spooler for allowing transmittal of a bi-directional request and a bidirectional response.

18. (original) The system of claim 17, wherein the bi-directional application program interfaces provide tools for supporting a get action, a set action, and an enumerate action.

19. (original) The system of claim 10, wherein the port monitor includes a mechanism for retrieving data from a network printer database and for accessing extension files within a driver to transform the received data.

20. (original) The system of claim 19, wherein the bi-directional application program interfaces provide a mechanism for returning the data retrieved by the port monitor.

21. (currently amended) [[A]] One or more computer-readable storage media having computer useable instructions embodied thereon for performing a method for automatically configuring a system upon installation of a network printer within the system, wherein the system includes printer description files, a driver, a spooler, and a port monitor, the method comprising:

getting, upon installation of the network printer, a list of installable features and corresponding bi-directional requests from the printer description files;

calling bi-directional application program interfaces from the spooler to query for a current configuration of the installable features;

mapping bi-directional schema to a printer-specific protocol; generating and routing a bi-directional notification;

mapping bi-directional responses to a feature from the printer description file; and updating an application with a current configuration, wherein updating the application with the current configuration includes performing an auto-configuration of the system upon installation of the network printer, the auto-configuration including configuration of the installable features: wherein the auto-configuration is capable of being performed independent of input from one or more users at one or more client computers.

22. (currently amended) The method media of claim 21, wherein routing a bi-directional notification comprises routing a drive printer event notification to the driver to inform the driver of a configuration change.

23. (currently amended) The method media of claim 21, wherein routing a bi-directional notification comprises routing a find next printer change notification to an application to allow the application to monitor and receive configuration changes automatically.

24. (currently amended) The ~~method~~ media of claim 21, further comprising implementing a plurality of keywords including a response type keyword for designating a bi-directional response type and a response data keyword for mapping between features of the network printer.

25. (currently amended) The ~~method~~ media of claim 21, further comprising providing automatic configuration updates at a global level, at an option level, and at a feature level.

26. (currently amended) The ~~method~~ media of claim 21, further comprising implementing independent hardware vendor extensions for enumerating specific features provided by a manufacturer.

27. (currently amended) The ~~method~~ media of claim 21, further comprising implementing the bidirectional application program interfaces to provide tools for supporting a get action, a set action, and an enumerate action.

28. (currently amended) The ~~method~~ media of claim 21, further comprising using the port monitor for retrieving data from a network printer database and accessing extension files from the printer description files in order to transform the data.

29. (currently amended) The ~~method~~ media of claim 28, further comprising using the bi-directional application program interfaces for returning the data retrieved by the port monitor.

30. (canceled)

31. (currently amended) [[A]] One or more computer-readable storage media having computer useable instructions embodied thereon for performing a method for providing extensibility for a port monitor in order to enable vendors to define new mappings using existing public bi-directional schema and extensions to existing schema, the method comprising:

permitting, upon installation of a network printer, the use of an extension file ~~capable of~~ describing a mapping between bi-directional values and device- specific objects, the extension file ~~configured to~~ seeks a current configuration of the network printer; and

allowing implementation of the extension file to facilitate a port monitor response to a bidirectional request,

wherein the extension file is configured to provides for auto-configuration of a system, the auto-configuration including configuration of the system to recognize the device-specific objects and current configuration of the network printer,

wherein the auto-configuration is capable of being performed independent of input from of one or more users at one or more client computers.

32. (currently amended) The ~~method~~ media of claim 31, wherein the extension file is an XML extension file.

33. (currently amended) The ~~method~~ media of claim 31, wherein the extension file comprises independent hardware vendor extensions of standard bi-directional schema.

REASONS FOR ALLOWANCE

2. Claims 1-29 and 31-33 are allowed.

The following is an examiner's statement of reasons for allowance:

Claims 1, 10, 21 and 31 of the instant application are allowed for the reasons pointed out by Applicant's remarks (p10, line 21 – p14). It follows that claims 2-9, 11-20, 22-29 and 32-33 are allowable as they depend from an allowable base claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on

Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS J. LETT whose telephone number is (571) 272-7464. The examiner can normally be reached on 8-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/THOMAS J. LETT/
Examiner, Art Unit 2625

/Edward L. Coles/
Supervisory Patent Examiner, Art Unit 2625